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MONTANA RENEWABLE ENERGY PROGRAM

GUIDELINES FOR PREPARING GRANT AND LOAN APPLICATIONS

This booklet is designed to help people interested in applying for funding through Montana's Renewable Energy Grant and Loan Program. It tells who is eligible for a grant or loan, and outlines what is required in a grant or loan application. The booklet also contains all necessary application forms.

Grant and loan funding is highly competitive. Please read the program description carefully to determine whether your project qualifies and whether it would be more appropriate for a grant or for a loan. If you're not sure whether your project would qualify, write or call:

Energy Division
Department of Natural Resources and Conservation
32 South Ewing
Helena, Montana 59620
Phone: 449-3940

Applications for grant funding in fiscal year 1983 must be postmarked no later than November 1, 1982; loan applications must be postmarked no later than January 1, 1983.

Boldfaced words or related terms in the text of this booklet are defined in the "Definitions" chapter, beginning on page 6.

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THE RENEWABLE ENERGY PROGRAM

Background

The Renewable Energy Program, funded through Montana's Coal Severance Tax, was established to reduce the state's reliance on fossil fuels through increased use of solar, wind, geothermal, small-scale hydro, and biomass energy alternatives. In 1976 the Department of Natural Resources and Conservation (DNRC) offered its first grants to Montanans researching, developing, and demonstrating renewable energy alternatives. To date more than 200 projects, available for public visitation, have been financed, in whole or part, through DNRC grants.

As the technology advanced and Montanans became more receptive to energy innovations, the renewable energy industry emerged. To encourage private sector involvement in renewable energy, the legislature established a subsidized loan program through the state's financial institutions. The loan program, developed by DNRC, was designed to encompass **commercial** ventures and projects with payback or income generating potential.

Grants, loans, and solicited projects

Most projects funded through the Renewable Energy Program fall within the progression from research and development to demonstration and, finally, commercialization. The grant program encompasses projects in the earlier stages—research, development, and demonstration—while the loan program is designed for projects that have reached the commercialization stage.

Grant and loan applications are submitted and evaluated separately. Application procedures, deadlines, and evaluation criteria for each type of assistance are discussed later in this booklet.

DNRC also solicits specific projects for grants. When a need for a particular project or study has been identified, DNRC outlines project goals and then sends out a formal Request for Proposal (RFP) that invites qualified individuals and organizations to bid competitively on the project. Because each RFP contains its own application requirements and evaluation criteria, solicited grants are not covered in detail in this booklet.

GRANTS

Eligibility

Any individual or organization is eligible to apply for a grant, provided the grant project is conducted in Montana and is applicable to Montana's energy needs. Projects may be conducted in the areas of renewable energy research, development, education, public information, and demonstration.

Conservation is not considered a renewable energy source, thus projects dealing exclusively with energy conservation are not eligible for grants. Renewable energy projects are partially evaluated on the adequacy of conservation measures incorporated into the proposed activity.

The maximum duration of grant projects is one year. The maximum funding available for any grant project is 10 percent of the total Renewable Energy Program appropriation for the year in which the application is submitted. For FY 1983, no more than \$225,000 can be granted for any one grant project or to any single applicant. Applicants proposing more than one project for grant funding must submit a separate application for each. All proposed projects are evaluated on the basis of their individual ments and, if selected for grants, are funded through separate contracts for each awarded project.

DNRC does not subsidize private renewable energy systems or fund demonstration projects that duplicate similar efforts in nearby areas. Demonstration projects involving public buildings and facilities receive priority over other projects.

Submittal and review

Applications for grant funding in FY 1983 must be postmarked no later than November 1, 1982. No addenda to these applications will be accepted after this date. The proposals will be judged only on information submitted before the deadline; DNRC will not contact the proposer for additional information. Immediately after the application deadline, DNRC staff identifies and eliminates any proposals that do not meet the basic eligibility requirements or that do not cover in sufficient detail the information that is requested in the application. The staff then conducts a technical review of all remaining proposals, and rates them according to the criteria outlined in this booklet. Technical review takes approximately two months, depending on the number of proposals received. Staff recommendations, along with abstracts of all proposals received, are forwarded to the Renewable Energy Advisory Council. This citizens' advisory council makes its own recommendations on project funding, after considering the recommendations of the DNRC staff. The final decision on funding rests with DNRC's director, after hearing the recommendations of the staff and council.

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LOANS

Eligibility

Any new or expanding business incorporated or authorized to do business in Montana is eligible to apply for a loan. The activities funded must be conducted in Montana and may include development, design, building, manufacturing, marketing, distribution, or sale of a renewable energy form, process, system or system component, or of renewable energy information. Renewable energy loans may not be used for refinancing.

Conservation is not considered a renewable energy source. Thus, activities dealing exclusively with conservation are not eligible for the loans. Activities are evaluated partially on the adequacy of conservation measures that are incorporated into the proposed activity.

All renewable energy loans must be repaid within 10 years. The maximum funding available for any loan project is 10 percent of the total Renewable Energy Program appropriation for the year in which the application is submitted. For FY 1983, the maximum loan amount available to a single borrower is \$202,500 from DNRC (90 percent of \$225,000), with at least \$22,500 (10 percent) from the financial institution. The loan application would be made for the total amount, in this case \$225,000. Loan applicants proposing more than one activity must submit a separate application for each. All proposed activities are evaluated on the basis of their individual merits and, if authorized for loans, are funded separately.

Renewable energy systems that sell electricity to the utility grid under the Public Utilities Regulatory Policies Act are eligible for loan funding. However, DNRC loans are not intended for systems whose primary purpose is to supply electricity to a private home or business and to sell only surplus power to the grid.

Submittal and review

Applications for FY 1983 must be postmarked by January 1, 1983. No addenda to these applications will be accepted after this date. The proposals will be judged on information submitted before the deadline; DNRC will not contact the proposer for additional information. Immediately after the deadline, DNRC staff conducts a review of the proposals for technical soundness, feasibility, and potential environmental impacts. The staff then makes recommendations on which applications to authorize for loan financing. The Renewable Energy Advisory Council also reviews the applications and makes its recommendations. Final authorization rests with the DNRC's director, after hearing the recommendations of the staff and council.

Renewable energy loans are administered by private financial institutions in Montana. DNRC authorizes successful applicants to present their proposals to the financial institutions of their choice. The participating lending institution then treats the application as any request for a loan. If the financial institution approves the loan, DNRC would provide up to 90 percent of the loan principal at the federal

discounted interest rate within the confines of available funds. The financial institution provides the remaining principal at any desired interest rate not exceeding its customary interest rate, considering the size and risk associated with the proposal.

This process takes about one month. When DNRC completes its review, the agency simultaneously notifies all successful loan applicants that they are authorized to seek financing through the program. It is then the applicant's responsibility to arrange financing through a lending institution. That institution performs all necessary credit checks and other loan origination work including the acquisition of all necessary security for both DNRC and its own loan shares. The applicant is required to notify DNRC of the institution selected and that institution's decision, terms, and conditions. Once these arrangements are complete and financing has been successfully arranged, DNRC funds successful loan applications on a first-come basis, as long as money is available.

Loan applications should be submitted to the Energy Division at the address listed on the first page of this booklet. Applicants must submit four copies of the complete application form, along with eight additional copies of the title page and abstract.

DEFINITIONS

Commercialization - the engagement by a new or expanding business incorporated, licensed, or otherwise authorized to do business in Montana in developing, designing, building, manufacturing, marketing, distributing, or selling renewable energy forms, processes, systems, system components or information.

Contract monitoring - a purposeful examination and supervision of a contractor's performance, plans, records, reports, and expenditures to ensure compliance with the terms and conditions described in a contractual agreement with DNRC.

Demonstration - a physical display or example to illustrate the operation of a renewable energy system or device and to provide evidence of its performance to a large population.

Development - an activity that utilizes the results of research or available knowledge and applies those results or knowledge to the design, construction and testing of hardware, models, or prototypes.

Educational and Informational project - any project that stimulates research, development, demonstration, commercialization, or use of renewable energy through workshops, publications, curriculum development, technical assistance services, audio-visual materials, or other means.

Financial institution - any state or federally chartered commercial bank, savings and loan association, or credit union authorized to do business or domiciled in the State of Montana and whose deposits are insured by the Federal Deposit Insurance Corporation (FDIC), the Federal Savings and Loan Insurance Corporation (FSLIC), or the National Credit Union Administration (NCUA). It shall also include the Farmers' Home Administration, the Federal Land Bank, and the Production Credit Association.

Performance monitoring - a systematic check, test or investigation to collect, record, and interpret data that will describe the efficiency, energy output, or other operational functions of a renewable energy system or device.

Research - an extensive or systematic study to discover facts or to discover or revise theories that will bring to a more advanced state the capabilities, understanding, availability, and suitability of a renewable energy source.

SUGGESTIONS FOR PREPARING APPLICATIONS

- * Conduct background research—show how your idea is an improvement on previous work in the same area.
- * Be clear and concise. Avoid unnecessary technical jargon.
- Don't wait for the deadline to prepare and to submit your proposal. The application forms are time consuming, and DNRC will not consider late proposals. Allow at least one month to prepare the proposal.
- If you're not sure whether your idea is eligible, contact DNRC long before the deadline.
- * Be realistic about work schedules. Don't attempt to accomplish an optimistically large amount of work in an unrealistically short time.
- Don't purchase any materials or undertake any part of your project until you have a signed contract from DNRC. The Renewable Energy Grant and Loan Program cannot reimburse any expenses incurred prior to the contract.
- Develop the project and proposal carefully and thoroughly. DNRC will offer limited assistance in clarifying questions about the application, but it will not design the project or proposal.
- Public entities submitting proposals should include a statement indicating support of the project, preferably in the form of a resolution passed by the relevant elected body.
- * Identify who will benefit from the project. Include the nature and number of people who will be affected.
- Be specific. Identify a particular energy problem or concern and show how your project would help alleviate it. Don't rest your case on general arguments in favor of renewable energy.

APPLICATION FORMS

The following pages contain all necessary application forms for a renewable energy grant or loan. The forms are in four sections: different types of projects or activities require that the applicant complete different sections. Please read through the forms carefully to ensure that you fill out the correct sections. Also, several major points to remember are summarized below. Reading through them may save time in preparing the application.

Eligible projects or activities

- conducted within Montana
- applicable to Montana's energy needs
- research, development, demonstration, education, information (grants)
- commercialization (loans)

Evaluation criteria

- technical soundness and feasibility
- public benefits
- potential environmental impacts
- potential for reducing reliance on nonrenewable energy sources

Awards

- grants or loans
- maximum for any project: \$225,000

Submittal requirements

- grants: by November 1, 1982
- loans: by January 1, 1983
- four copies of complete application
- eight copies of title page and abstract
 - submit to: Department of Natural Resources

and Conservation Energy Division 32 South Ewing Helena, MT 59620

The information in the following forms will be required in most cases to completely evaluate and consider your application. Some items, however, may not be relevant to your project or activity. In other cases it may be helpful to provide more information than is suggested. The following page is the title page, required on all applications.

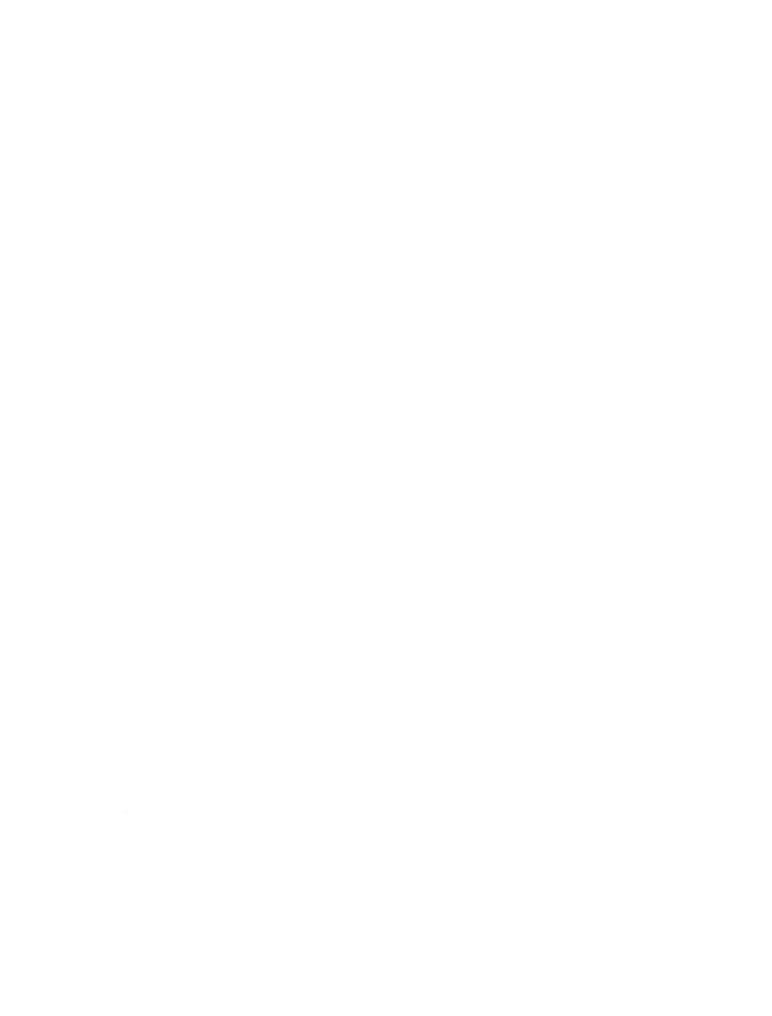
DNRC USE ONLY
Grant Loan
Application =

TITLE PAGE

ALL APPLICANTS MUST FILL OUT THIS PAGE

Print or type. (Fill o	out completely.)				
Project Title:					
Amount of Funding	Request: \$NFORMATION	1	Total Project Co	ost: \$	
Applicant's Name			Co-applicant's l	Name	
Mailing Address		×	Mailing Addres	es	
City, State, Zip		Telephone	City, State, Zip		Telephone
Applicant or Author	 rized Signature		Project Consult	ant	Organization
Contact Person		Telephone	Address		
			City, State, Zip		Telephone
Check one:					
— Individual Corporation Nonprofit co Partnership	_	Sole proprie Association Trust Foundation	torship	Education or scient institution Government unit Other (specify)	nune
PROJECT INF	ORMATION				
Energy Type:	Solar Wind Biom	1	Category:	Research Development Education & In Demonstration Commercializa	
Grants for research,	development and de	monstration:			
SECTION A SECTION B	11.7	ring for a grant to res B of the application.	earch, develop, or o	demonstrate a renewable	e resource, fill out
Grants for public ed	ucation or informatio	n dissemination:			
SECTION A SECTION C	If you are apply:		ducation or informat	ion project, fill out Section	ons A and C of the
Loans for renewable	products, forms or p	rocesses:			
SECTION A SECTION B SECTION D	devices, or comp	ng for a loan to market ponents, fill out Sectio	, distribute, or sell reens A. B and D of the	newable energy forms, papplication.	rocesses, systems,
	and information proje	ects:			
SECTION A SECTION C		ng for a loan for an edu	ication or information	n project, fill out Sections	A, C and D of the

SECTION D



SECTION A: GENERAL PROJECT INFORMATION

ALL APPLICANTS MUST FILL OUT SECTION A.

Provide the following information in narrative form on separate 8-2-by-11 inch sheets of paper except where we have provided a form. As you complete each section place a check in the corresponding box. The information is required for the complete evaluation of your proposal. Some items, however, may not be relevant to your project or activity: if so, please indicate. In some situations it may be helpful to supply more information than is subjected below.

Project Abstract. In two pages or less provide a brief statement that summarize the objectives, general nature, and plan for undertaking the project. This is to be a concise overview of the project.

Introduction. This section provides a context or framework in which to place the project by addressing the following items: Discuss the past developments or discoveries that are the basis for your proposal. Give a brief "state-of-the-art" or current review of the subject. Indicate how your activity furthers any previous developments. Footnote any literature upon which your proposal is based or that is used in your endeavor.

Needs and Objectives. Address how your project would reduce Montana's reliance on fossil fuels by identifying the specific energy concern or problem that prompted your proposal. Describe how your project will address the stated problem. Include a discussion of any solutions to community or statewide needs that your project may offer. Provide a description of the intended results and any special energy-saving devices, systems, or information that would be generated. If applicable, indicate the type of energy that will be produced or displaced.

Public Benefits. Describe the public benefits that would result from your project. Include a description of whom would directly benefit, the number of people influenced, and the size of the geographic area affected. Identify any activities or products for public use that your project would provide.

Qualifications. Include a higgraphical sketch as an exhibit for all key staff, consultants, and contractors you will be using for technical assistance or support. Explain why these people were selected. Describe any training, experience, license, apprenticeship, or interest of these individuals that is relevant to the management of the project's design, operation, administration, or business activity.

Budget. Using the description in the budget categories provided below complete the following budget forms:

Project Budget Summary Sheet. Complete the form provided.

Budget Detail Sheets. Complete the forms provided; use additional nearest timeressery

(SECTION A:)

DESCRIPTION OF BUDGET CATEGORIES

- Salaries and Wages—Identify each person required to complete this project. List
 all participants by name and position, or by position only if not yet hired. List the
 estimated number of hours each will work and the hourly wage rate. Include
 clerical services, bookkeeping, and other support staff in this category.
- 2. Fringe Benefits—Enter the fringe benefits to be paid and the rate or method by which they were calculated.
- 3. Contracted Services—Identify any services to be provided by others hired as consultants or by contract for professional services. This category includes, but is not limited to, electrical, plumbing, and construction expertise, data processing, printing services, film developing, and laboratory testing. List each specific service to be performed.
- 4. Supplies and Materials—List all office supplies, building materials, or parts necessary to prepare, conduct, or construct this project. These items are generally consumable commodities purchased for inventory or immediate use, and cost under \$100 per unit. List the costs of all items.
- 5. Communications—Include telephone, postage, mailing, and advertising costs in this category.
- 6. Travel—List only costs for travel that are essential to conduct the project. Detail the expected travel destination, and the number of trips to be made. Travel rates may not exceed the current state employee rates for meals, lodging, and travel. (Meals: Breakfast \$3.00, lunch \$3.50 dinner \$7.00. Lodging (with receipt) \$24.00, lodging (without receipt) \$7.00. Automobile rate \$.20 per mile.)
- 7. Rent and Utilities—List the terms and costs of buying or renting office space, starage computer rental, other office equipment use, additional project space requirements, and applicable utility expenses.
- 8. Equipment—Include in this category articles leased or purchased for use on the project. These items generally are of a nonconsumable nature and have an estimated life of more than one year, and a cost greater than \$100. Commercial solar milecture, storage tanks, wind generators, and heat pumps are specific examples. List all necessary items and their costs.
- 9. Miscellaneous and Indirect Costs—Identify any indirect costs necessary to complete this project. List any other projects costs, such as repairs or maintenance, that have not been addressed in the other budget categories.

PROJECT BUDGET SUMMARY SHEET

(SECTION A)

	COST CATEGORY	DNRC COST TOTALS (FROM BUDGET DETAIL SHEETS)	PROPOSER CONTRIBUTION	OTHER OUTSIDE SOURCES	TOTAL
1.	SALARIES AND WAGES				
2.	FRINGE BENEFITS				
3.	CONTRACTED SERVICES				
4.	SUPPLIES & MATERIALS				
5.	COMMUNICATIONS				
6.	TRAVEL				
7.	RENT & UTILITIES				
8.	EQUIPMENT		-		
9.	MISCELLANEOUS & INDIRECT				
	TOTAL \$				

BUDGET DETAIL SHEET

(SECTION A)

CATEGORY	PROPOSER DNRC CONTRIBUTION	OTHER SOURCE TO LAM
1. SALARIES AND WAGES		
TOTAL SALARIES AND WAGES \$		
2. FRINGE BENEFITS		
TOTAL FRINGE BENEFITS \$		
3. CONTRACTED SERVICES		

BUDGET DETAIL SHEET

(SECTION A)

CATEGORY		DNRC	PROPOSER CONTRIBUTION	OTHER SOURCE	TOTAL
4. SUPPLIES AND MATERIALS					
TOTAL SUPPLIES AND MATERIALS	\$				
5. COMMUNICATIONS			-		
TOTAL COMMUNICATIONS	\$				
6. TRAVEL					
TOTAL TRAVEL	S				
7. RENT AND UTILITIES					

\$

TOTAL RENT AND UTILITIES

BUDGET DETAIL SHEET

(SECTION A)

CATEGORY DNRC CON'

PROPOSER CONTRIBUTION

OTHER SOURCE

8. EQUIPMENT

TOTAL EQUIPMENT

\$

9. MISCELLANEOUS AND INDIRECT COSTS

SECTION B: METHODS, TECHNICAL

RESEARCH, DEVELOPMENT, DEMONSTRATION. & CONSTRUCTION PROJECTS

This section is the main body of your project and should contain sufficient detail to be evaluated according to DNRC criteria, without the need for additional information. You are to identify the process of design, procurement, and construction of your project. Address any significant measurements, sources of information, and assumptions used as a technical basis.

Resource Assessment. Discuss the suitability of the proposed site for the resource being used. Identify any resource evaluations that you have made specific to the site. Address the following:

- the means used to measure results (equipment, placement, timing, etc), the data source(s) used (Montana Solar Data Manual, or any other publications, reports, etc.).
- the expertise and or consultants involved.
- the quantity(ies) measured, including the duration of such measurements, the results of the resource assessment, including the data gathered daily, seasonal, annual, or other natural cycles.
- variations of the resource.
- copies of any written reports generated through the resource assessment.

Site Suitability. Describe the suitability of the proposed site for the use or development of the renewable resource addressed. Discuss the energy conservation measures presently used at the site. Provide drawings showing the proposed location, geography, transmission lines, and nearby major transportation routes. Show proof of land ownership, easements, and or accessibility. Identify all local, state, and federal tentes and permits required for the construction maintenance, and operation of the roposed project. Show proof that all necessary licenses and permits have been or are in the process of being toggined. Identify any restriction, such as local noning ordinances affecting the installation.

System Design. Describe the total system design. Identify subsystems and comprinents, where applicable, including: control systems, emergency shut-down mechanisms, and interconnect equipment for utility grid tie-in. Include schematic drawings, blueprints, and any other system design drawings.

Discuss the design priteria and specifications for the major equipment components. Include equations of a matrices, and results. Theroughly describe any prototypes, experimental systems, and appropriate modifications you intend to use. Identify the equipment manufactures, for the commercially available components. Include manufacturer brochures, if available

Provide a process distribution for the proposed system's operation. Identify individual steps in the overall process such as collection, storage, processing, distribution, and end-use.

Energy Analysis, F- to the second of the sec

Conventional Snergy Consumption in the conventional fuel use at the sne will be appearing the completed.

Tasks and Milestones. Discussing mounts of the project. Describe such accounting mount of the project. Describe such accounting mount of the mount of the mass green and anticipated tasks.

Work Schedule. Complete the World School of The Complete the World

SITE CONVENTIONAL ENERGY CONSUMPTION (PRECEEDING 12 MONTHS)

(SECTION B)

FUEL TYPE	END USE.	ANNUAL CONSUMPTION	ANNUAL ENERGY COST
ELECTRICITY		KWH	S
NATURAL GAS		MCF	S
=2 FUEL OIL		GALLONS	S
PROPANE		GALLONS	S
··· OTHER (SPECIFY)			S

For example, space heating, domestic hot water heating, lighting, small applicance, etc.

For example, wood

SECTION C: METHODS, GENERAL EDUCATION AND INFORMATION PROJECTS

This section is the main body of your project and should contain sufficient detail to be evaluated according to DNRC criteria, without the need for additional information. Address any significant measurements, sources of information, and assumptions used as a basis for the proposal.

as a basis for the proposal.	
On a separate piece of paper present a discussion that addresses the following:	
Audience. Describe the nature and number of persons the project will reach. Include age groups, professions, and geographic areas to be targeted. Discuss how the audience was selected and the effect, if any, the target audience will have on educating other groups.	
Project Description. Discuss specific project details in a narrative format. Explain the activities involved in the project, when, where, and how they will be carried out and who will be involved. Describe the anticipated results of the project. Give the reasons for the selection of project activities. Include the long and short term benefits to be gained from your project.	
Tasks and Milestones. Discuss the major tasks that must be accomplished to complete the project. Describe each activity in chronological order, and include the timeframe required for completion. Identify key personnel or positions together with their assigned or anticipated tasks.	
Work Schedule Form. Complete the Work Schedule Form at the back of this booklet.	
Materials Developed. Describe all written and visual materials that will be developed or used for the project. Discuss distribution of materials during and after the project. Discuss whether these materials will be useful for purposes other than those of this project.	
Professional Training and Experience of Proposer. Identify key personnel with their assigned tasks and explain professional training of the personnel and their experience with similar projects. Include training and experience relative to energy and to educational projects.	
Evaluation. Present the plan for evaluating your project. Include any data gathering methods and plans for data review.	

SECTION D: ECONOMIC FOR LOAN APPLICATIONS ONLY

Feasibility of the Proposed Project. Provide a feasibility analysis that addresses cash flow, income, and expenses of the project. Describe the cost and price trends competitive uses, and cost projections. Include a general description of the market available for the product. Identify the potential end uses or give an estimate of the demand. Provide an evaluation of the financial effects of change in revenue, expenses, and loan interest rates. Present a description of the payback potential of the project. Give the location, length of operation, and results of at least one similal project.
Economic Analysis. Explain proposed marketing plans. Identify potential buy ers such as local utilities, gas companies, farmers, or industrial plants. Discuss initia contacts made with potential purchasing arrangements and specify terms of purchasing agreements.

WORK SCHEDULE FORM

(SECTIONS B AND C)

TASKS - MILESTONES	1	2	3	4	5	6	7	8	9	10	11	12

